

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: William S. Johnson, Jr.

Serial No. 09/560,473

Filed: 04/28/2000

For: **SOFTWARE DOWNLOAD SYSTEM AND METHOD FOR AUTOMATIC  
RETRIEVAL OF ROYALTY, WARRANT, AND COMMISSIONING DATA**

Examiner: Kiss, Eric B.

Art Unit: 2122

Commissioner for Patents

Washington, D.C. 20231

Sir:

**DECLARATION UNDER 37 C.F.R. § 1.131 OF WILLIAM S. JOHNSON, JR.**

1. My name is William S. Johnson, Jr. and I am the inventor in the above-styled application for patent.
2. At least as early as August 4, 1998, I had conceived of the invention underlying the above-styled application and was discussing with my co-workers the need for a laptop to provide software upgrades to fueling environments using the Gilbarco fueling pumps. This is evidenced by the memo attached as Exhibit A.
3. I worked on the concept of downloading software to the laptops and deploying the laptops off and on in the remainder of 1998 and the first part of 1999.
4. Sometime prior to June 4, 1999, I began working on a power point presentation to present the idea to my employer.
5. On July 12, 1999, I submitted the power point presentation to Steve Terranova, Patent Counsel for Gilbarco, as evidenced by Exhibit B. This power point presentation shows a more fleshed out version of the original concept discussed at the meeting of August 1998.
6. Steve Terranova reviewed the presentation and presented it to the Gilbarco Patent Committee. The Patent Committee authorized an application at least by January 24, 2000 as evidenced by the memo from Steve Terranova attached as Exhibit C.

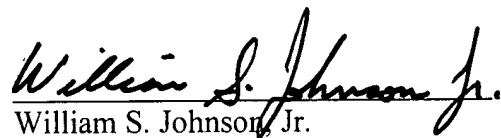
7. On December 1, 1999, Steve Terranova sent a letter to me indicating outlining how the inventions in the power point presentation could be differentiated and outlined the strategy that would be taken with respect to preparing patent applications.

8. The law firm of Coats & Bennett sent me a final draft of the patent application on April 3, 2000 as evidenced by the cover letter attached as Exhibit D.

9. It is my understanding based on the evidence supplied to me by Steve Terranova that both Gilbarco and the law firm of Coats & Bennett addressed their work in a First In-First Out manner (see Declaration of Steven N. Terranova enclosed herein).

10. The application was filed on April 28, 2000 after diligence from conception to filing.

11. I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
William S. Johnson, Jr.

March 4, 2003  
Date

## **EXHIBIT A**

# Memo

TO: Electronic Distribution

From: W.S. Johnson

Date: August 4, 1998

Subject: Discussion on Electronic Software Downloading

Attendees:

Steve McSpadden	Bob Shepard	Doug McLaughlin	Ken Miller
Tim Dickson	Ed Brazeau	David Sauls	Bill Royal
Randy Watkins	Alfons Harding	John Glenn	Dave Garvey
Bill Johnson			

A meeting was held on August 4, at 10:00 AM in Auditorium 'A' to discuss the problem with downloading software that AMO and Marketing had identified.

AMO (Tech Support) wants to have changeable software just like we do now for Advantage. The problem is that NGD will have a lot more memory. Currently the memory for the NGD dispenser is somewhere between 1 and 2 megabytes and the memory size for the CRIND may be around 8 megabytes. The smaller chips are available in a PLCC package which could be socketed at extra cost but the larger chips for the CRIND will be quad flat packs. Engineering maintains that we want to solder these chips in place. It was pointed out that in order to physically swap firmware chips, more than one PC board would be involved in any NGD assembly and also multiple chips for the dispenser and CRIND controller boards. Furthermore we are under a management mandate for NGD to make the software downloadable.

Engineering also wants to get away from buying, programming, and shipping so many EPROMs like we do today. We want to let our customers (through ASCs, distributors) receive new software by downloading from a web site.

A main problem for Bob Shepard (South America and Southeast Asia markets) was the cost of a laptop computer to accomplish the SW download. It was requested that this be done in a palm top type unit and we thought we could do that. The magic cost target for Bob was below \$500 a unit. Alfons Harding (Germany) thinks they will want to do a special box for the download modeled on a unit they already use. Steve Cramp (UK) sent me an email this morning in which they said they could accept the electronic download. Have not heard from Australia yet, hopefully they will be able to accept this as well. I believe Logitron (Italy) thinks they can do this and the cheaper palm top would certainly help. Note that regulations in some countries dictate that software would have to be loaded in the boards in the factory and then placed in service. Ed Brazeau also had an interesting suggestion, which was to connect a floppy drive to the dispenser and let the dispenser load itself. We'll think on this one – would have to be a superdisk drive since the current floppy drives only hold 1.4 MB.

Several people have asked how long it would take to download SW on a serial link. We intend to connect at around 115K bits per second which means a 1 megabyte file would load in about 1 and ½ minutes.

At the end of this, the group agreed that they could accept electronic downloading if an inexpensive unit was available to accomplish this in markets where the cost of a laptop is prohibitive. Engineering will start this project as part of the NGD electronic design and search for a

suitable inexpensive unit such as a palm top in addition to a laptop. We will start by working on a document with Product Support and finding personnel to work on the software. The goals of this sub-project will be:

1. Document the requirements
2. Document the interface.
3. Locate suitable hardware platforms (laptops(any) and palm tops)
4. Create software to load on either hardware unit to handle downloading (and other functions as well)
5. Merge this with the overall NGD project.

It was recognized that this is just the start of a new in service and support for dispensers and that it would grow in the future to include remote downloading and other service related features.

## **EXHIBIT B**

*Encore/Eclipse Software*

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*Business Issues  
and  
New Infrastructure Requirements*

# *Issues for Encore/Eclipse*

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## Business Issues

- **Must** pay royalties on SUN OS used in the Encore/Eclipse CRIND.
- Other data collection requirements and business issues derive from the one above.

## New Infrastructure Requirements

- Need changes to support the collection of data to support the business issues.



# *Driving Requirements for Encore/Eclipse*

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## Must:

- track SUN OS upgrades for royalty payments.
- have Downloadable Software.
- have Local/Remote Diagnostics.

## Want to:

- track all software downloads and upgrades.
- pay warranty and commissioning fees through electronic data.

# *Software Royalty Situation*

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- We will pay the SUN OS licenses for CRIND at time of manufacture at USA Halstead.
  - Upgrades in the field that have the same SUN OS version **will not** need a royalty payment.
- Upgrades in the field that install a newer SUN OS **will** require a royalty payment.
- No royalties will be owed due for Dispenser upgrades - ever. We own paid up unlimited distribution rights for the dispenser OS.

# *Field Operation Solutions*

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Uses Laptop Computer as main field tool

- Tracks SUN OS upgrades.
- Performs Software downloads.
- Collects diagnostic data.
- Programs dispenser/CRIND functionality.
- Tracks Board replacements.
- Tracks Warranty repairs.
- Collects Commissioning data.

# *How Do We Get the Data Back?*

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We must get the ASC to reconnect the laptop to our Web Site for information retrieval.

How can we ensure this?

- Only pay warranty from this data.
- Only pay commissioning fees from this data.

# *What's Needed at Gilbarco?*

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- Changes required for our Web Site.
  - Support the Encore/Eclipse software distribution over the WWW.
  - Support the laptop operating software distribution over the WWW.
  - Support data retrieval from the laptop over the WWW.

# *Three Development Phases*

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## First phase

- Field support for Encore/Eclipse.
- Distribution of software products.
- Factory support.

## Second Phase

- Remote software download.
- Remote diagnostics retrieval.
- Remote problem notification.

# *Development Phases* (continued)

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## Third Phase

- Interconnectivity between Gilbarco departments for distributing information.

# *First Phase Status*

## *- Field Support & Distribution*

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Laptop software is under design and construction.

Will be meeting with International Sales and others on methods for less developed countries.

Working with the WEB center personnel on WEB site contents and functions.

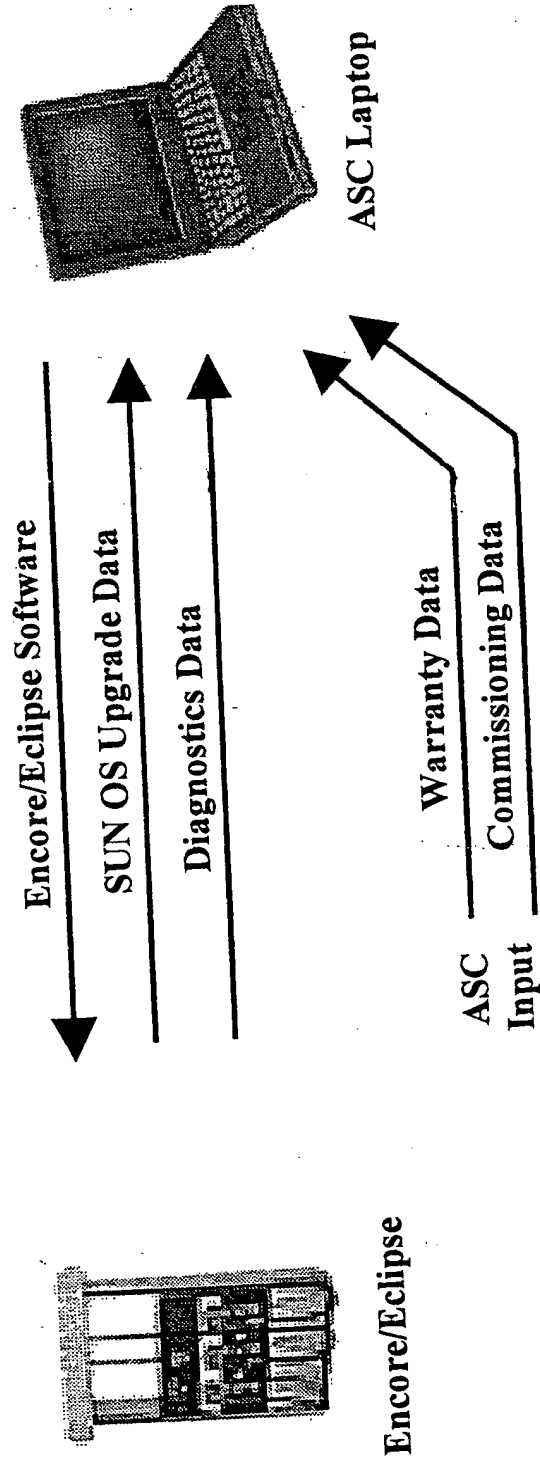
WEB center personnel will design Java applets to control the laptop during connection to the WWW site for distribution and data retrieval.



# *Data Flow Diagram*

## *First Phase - Field Support*

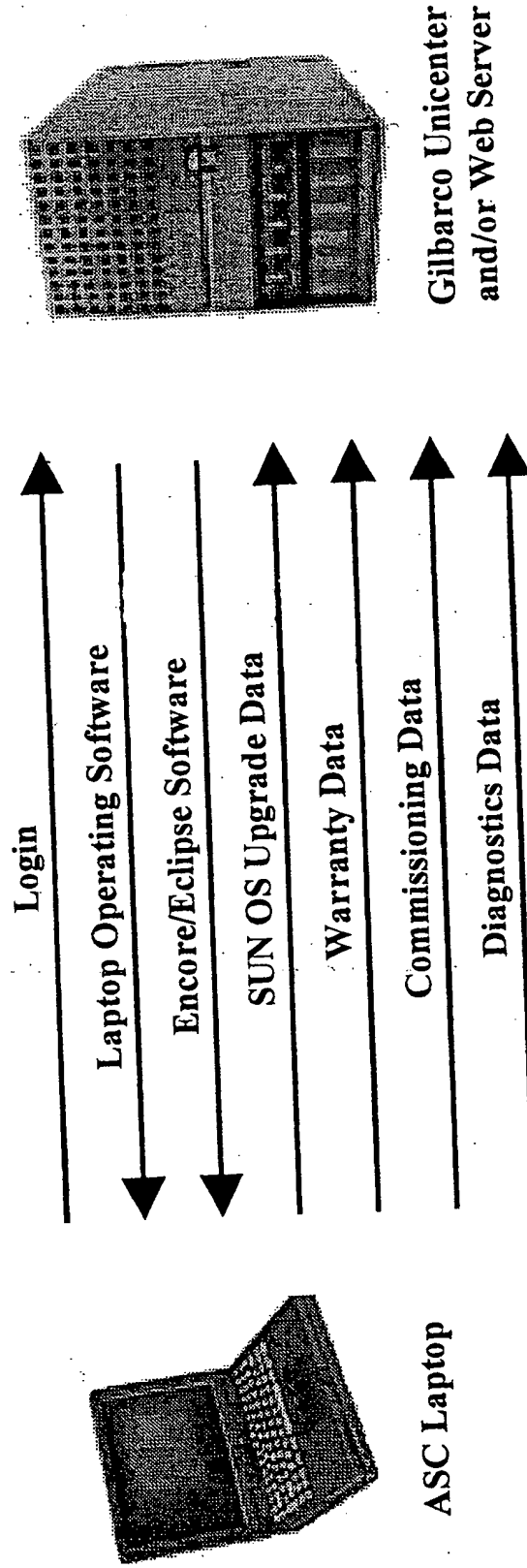
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# *Data Flow Diagram*

## *First Phase - Distribution*

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# *First Phase Status (continued)*

## *- Factory*

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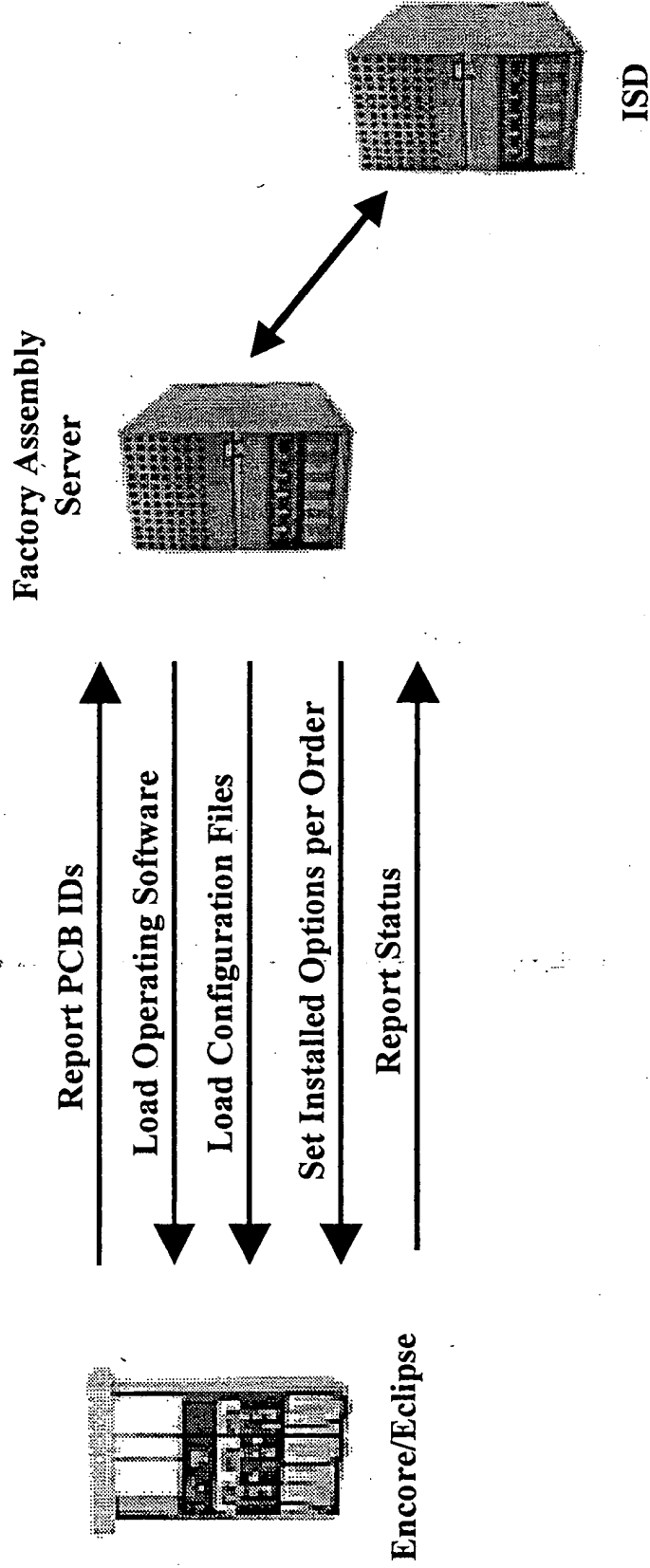
Working with factory teams on design of methods for manufacturing.

- Input pump frame data.
- Download software to dispenser/CRIND
- Download configuration and programming data to match order entry requirements.

# *Data Flow Diagram*

## *First Phase - Factory*

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## **EXHIBIT C**

**COATS & BENNETT, PLLC**

P.O. Box 5  
Raleigh, NC 27602

(919) 854-1844 (Office)  
(919) 854-2084 (Fax)

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# Memorandum

To: Bill Johnson

From: Steve Terranova

Date: 1/24/00

2400-418

Re: Gilbarco PM #9948

"Software Download System & Method for Automatic Retrieval of Royalty,  
Warranty and Commissioning Data"

The patent committee decided to pursue your idea for patent protection. The next step in the process is to perform a patentability search on your invention to determine if it contains patentable subject matter. After the search and report has been completed, I will be in contact with you to discuss the details of the invention to begin preparing an application.

Thank you for your idea submission. I will log you down as a patent award for this matter at this time of \$100 for the submission.

If you have any questions whatsoever, please feel free to call me at 919-854-1844.

Very truly yours,



Steve Terranova

## **EXHIBIT D**



DOCKETED

APR 17 2000

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Patents, Trademarks,  
Copyrights, Trade Secrets,  
Licensing, and  
Related Litigation

Patent Attorneys,  
Larry L. Coats  
David E. Bennett  
Benjamin S. Withrow  
John R. Owen  
David D. Kalish  
Steven N. Terranova  
Taylor M. Davenport

Patent Agent  
Michael D. Murphy

April 3, 2000

Mr. William S. Johnson, Jr.  
Marconi Commerce Systems Inc.  
7300 West Friendly Avenue  
P.O. Box 22087  
Greensboro, NC 27420-2087

cc: Mr. Charles E. Carlson, Esq.

RE: Patent Application for:  
**SOFTWARE DOWNLOAD SYSTEM FOR AUTOMATIC  
RETRIEVAL OF WARRANTY AND COMMISSION DATA**  
Your Ref: PM 9948  
Our File No: 2400-418

Dear Bill,

Enclosed please find an original of the formal patent application, Declaration and Assignment for the above-referenced invention. Please review the application carefully for accuracy and completeness, making any changes, additions or corrections directly on the application. Note that particular attention should be paid to the section titled "Detailed Description of the Invention." Please initial and date each change in either the left or right margin next to the change. Then, please sign the attached Declaration and Assignment where indicated. The Power of Attorney has forwarded to Chuck Carlson for his signature.

Please return the signed originals of the application and forms to me for filing with the United States Patent Office.

Thank you for allowing us to be of service to you in this matter.

Very truly yours,

Steve Terranova

SNT/mjp  
Enclosures